AMENDMENTS TO THE CLAIMS:

Please cancel claims 31-86 without prejudice or disclaimer of the subject matter thereof and add new claims 87-104 as follows. The following **Listing of Claims** will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1. through 86. (Cancelled)

87. (New) A process for cross-linking sulfonyl groups $-SO_2Y^-(M^+)A$ of a sulfonated polymer wherein at least a fraction of the cross-linking bonds bear an ionic charge, the process comprising contacting the polymer with a cross-linking agent allowing the reaction between two sulfonyl groups $-SO_2Y^-(M^+)A$ from adjacent polymeric chains to form the cross-linking bonds,

wherein the cross-linking bonds are of the type:

$$P\text{-}SO_2(M^+)Y^-SO_2\text{-}(Q\text{-}SO_2)_r\text{-}Y^-(M^+)SO_2\text{-}P'$$

wherein

- P and P' are the same or different and are part of a polymeric chain;

- Y is N or CR wherein R is H, CN, F, SO_2R^3, substituted or unsubstituted $C_{1\text{-}20}$ alkyl, substituted or unsubstituted $C_{5\text{-}20}$ aryl, or substituted or unsubstituted $C_{2\text{-}20}$ alkenyl, wherein each substituent is independently one or more halogen, and wherein R may have one or more substituent selected from F, SO_2R, aza, oxa, thia or dioxathia;

- R^3 is F, substituted or unsubstituted $C_{1\text{-}20}$ alkyl, substituted or unsubstituted $C_{5\text{-}20}$ aryl, or substituted or unsubstituted $C_{2\text{-}20}$ alkenyl, wherein the substituent is selected from one or more halogens;

- M^+ is an inorganic or organic cation;

- Q is a divalent radical $C_{1\text{-}20}$ alkyl, $C_{1\text{-}20}$ oxaalkyl, $C_{1\text{-}20}$ azaalkyl, $C_{1\text{-}20}$ thiaalkyl, $C_{5\text{-}20}$ aryl or $C_{5\text{-}20}$ alkylaryl, each being optionally substituted by one or more halogens, and wherein Q may have one or more substituents selected from oxa, aza, or thia;

- A is M, $Si(R')_3$, $Ge(R')_3$ or $Sn(R')_3$ wherein each R' is $C_{1\text{-}18}$ alkyl;

- r is 0 or 1; and

the divalent radical and the sulfonated polymer are partially or completely fluorinated.

88. (New) The process according to claim 87 wherein the cross-linking agent is a compound of general formula:

$LSO_2(Q\text{-}SO_2)_rL$

wherein each L is a leaving group.

89. (New) The process according to claim 88 wherein the leaving group L is F, Cl, Br, an electrophilic heterocycle N-imidazolyl, N-triazolyl, or R^2SO_3, R^2 being an organic radical optionally halogenated, the organic radical selected from:

- a proton, an alkyl, an alkenyl, an oxaalkyl, an oxaalkenyl, an azaalkyl, an azaalkenyl, a thiaalkyl, a thiaalkenyl, a dialkylazo, a silaalkyl optionally hydrolysable, a silaalkenyl optionally hydrolysable, each being straight, branched or cyclic and comprising from 1 to 18 carbon atoms;
- a cyclic or heterocyclic aliphatic radical comprising from 4 to 26 carbon atoms optionally comprising at least one lateral chain optionally comprising one or more heteroatoms such as nitrogen, oxygen or sulfur;
- an aryl, an arylalkyl, an alkylaryl and an alkenylaryl of from 5 to 26 carbon atoms optionally comprising one or more heteroatoms in the aromatic nucleus or in a substituent.

90. (New) The process according to claim 87 wherein A is a trialkylsilyl group.

91. (New) The process according to claim 87 wherein the cross-linking agent is SO_2Cl_2 + 3 DABCO, $SO_2(imidazole)_2$, $[FSO_2CF_2]_2$ + 3 TEA, $(ClSO_2CF_2)_2CF_2$ + 3 DABCO, or $(FSO_2CF_2CF_2)_2O$ + 3 DABCO.

92. (New) The process according to claim 87 wherein the non cross-linked polymer is molded before being cross-linked.

93. (New) The process according to claim 87 wherein the non cross-linked polymer is mechanically blended with the cross-linking agent, pressed and heated.

94. (New) The process according to claim 87 wherein the non cross-linked polymer is molded and contacted with a solution of the cross-linking agent in an inert solvent.

95. (New) The process according to claim 94 wherein the cross-linking density is controlled by the time of immersion in the solvent, the temperature of the solvent, or the cross-linking agent concentration in the solvent.

96. (New) The process according to claim 94 wherein the solvent comprises aromatic hydrocarbons, hydrocarbons and aliphatic ethers partially or completed halogenated, THF, alkylethers of mono-, di- tri- and tetraethylene glycols (glymes), tertiary alkylamides including DMF, N-methylpyrrolidone, tetramethylurea and its cycling analogues, N-alkylimidazoles, tetraalkylsulfamides, and mixture thereof.

97. (New) The process according to claim 87 wherein the non cross-linked polymer is molded and contacted with the cross-linking agent and a non cross-linking ionogene agent to form end groups $[SO_2YSO_2R]^-(M^+)$.

98. (New) The process according to claim 97 wherein the non cross-linked polymer is molded and contacted sequentially or simultaneously with the cross-linking agent and the non-cross-linking ionogene agent.

99. (New) The process according to claim 97 wherein the non cross-linking ionogene agent comprises $[LSO_2RF]$, wherein L is a leaving group and RF is an alkyl, oxaalkyl, azaalkyl or thiaalkyl radical essentially perfluorinated and having from 1 to 12 carbon atoms.

100. (New) The process according to claim 87 wherein a reinforcing agent is added to the polymer before the cross-linking.

101. (New) The process according to claim 97, wherein R is halogenated.

102. (New) The process according to claim 101, wherein R is perfluorinated.

103. (New) The process according to claim 87 wherein M^+ is a proton, a metal cation, an organometallic cation or an organic cation optionally substituted with one or more organic radicals selected from:

- a proton, an alkyl, an alkenyl, an oxaalkyl, an oxaalkenyl, an azaalkyl, an azaalkenyl, a thiaalkyl, a thiaalkenyl, a dialkylazo, a silaalkyl optionally hydrolysable, a silaalkenyl optionally hydrolysable, each being straight, branched or cyclic and having from 1 to 18 carbon atoms;

- a cyclic or heterocyclic aliphatic radical comprising from 4 to 26 carbon atoms optionally comprising at least one lateral chain optionally comprising one or more heteroatoms such as nitrogen, oxygen or sulfur; or

- an aryl, an arylalkyl, an alkylaryl and an alkenylaryl of from 5 to 26 carbon atoms optionally comprising one or more heteroatoms in the aromatic nucleus or in a substituent.

104. (New) The process according claim 103 wherein the metal comprises an alkaline metal, an alkaline-earth metal, a rare earth or a transition metal; the organic metallic cation comprises metallocenium, an arene-metallocenium, an alkylsilyl, an alkylgermanyl or an alkyltin, and the organic cation comprises an onium selected from the group consisting of oxonium, ammonium, amidinium, guanidinium, pyridinium, imidazolium, triazolium, imidazolinium, sulfonium, phosphonium, iodonium, and carbonium, wherein the onium comprises at least one organic radical R", and when an organic cation comprises at least two radicals R" different from H, these radicals can form together a cycle, aromatic or not, eventually containing the center bearing the cationic charge.